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(71) Applicant (for US only): PLANTECHNO S.R.L [IT/IT]; Via Staffolo 60, I-26040 Vicomoscano (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FOGHER, Corrado [IT/IT]; Via Ticino, 32, I-26041 Casalmaggiore (IT). REGGI, Serena [IT/IT]; Via Capra 28, I-29100 Vicenza (IT).

(74) Agents: GERMINARIO, Claudio et al.; Società Italiani Brevetti, Piazza di Pietra, 39, I-00186 Roma (IT).

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(54) Title: EXPRESSION OF LYSOSOMAL ENZYMES IN PLANT SEEDS

(57) Abstract: The present invention relates to the production of transgenic plants able to express, in seed storage tissues, a lysosomal enzyme in enzymatically active form and in amounts appropriate to its use in enzyme replacement therapy. In particular, the present invention relates to plants and seeds containing this enzyme.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATT IPC 7 A01H5/00 A0 A01H5/10

C12N15/82

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

AO1H C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, MEDLINE, EMBASE

	ENTS CONSIDERED TO BE RELEVANT	micront pagagan	Relevant to claim No.		
Category °	Citation of document, with indication, where appropriate, of the	e televalii passages	rielevant to claim to.		
X	WO 97 10353 A (CROPTECH DEV CONTECH INTELL PROP (US)) 20 March 1997 (1997-03-20) cited in the application claim 1	1-22			
X	WO 02 08404 A (KUMAGAI MONTO H THOMAS H (US); GARGER STEPHEN LARG) 31 January 2002 (2002-01- page 58, line 10 -page 69, line	1-22			
A	WO 00 04146 A (FOGHER CORRADO SRL (IT)) 27 January 2000 (200 cited in the application				
A	WO 99 16890 A (UNIV CALIFORNIA 8 April 1999 (1999-04-08))			
		-/			
X Furt	ther documents are listed in the continuation of box C.	X Patent family members are listed	l in annex.		
"A" docume consider filling of "L" docume which citatio "O" docume other "P" docume other "P" docume per docume other "P" docume consider "P" docu	ategories of cited documents: ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another or or other special reason (as specified) entert referring to an oral disclosure, use, exhibition or means sent published prior to the international filing date but than the priority date claimed	 "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family 			
Date of the	actual completion of the international search	Date of mailing of the international se	earch report		
2	29 July 2003	04/08/2003			
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Bilang, J			

INTERNATIONAL_SEARCH REPORT

PCT/I /00120

C.(Continu	nation) DOCUMENTS CONSIDER OF TO BE RELEVANT	
Category °		Relevant to claim No.
A	US 6 288 304 B1 (MOLONEY MAURICE M ET AL) 11 September 2001 (2001-09-11)	

INTERNATIONAL	SEARCH REPORT
INTERNATIONAL.	SCANCII INCI OILI

INTE	RNATIO	MAL SEARCH R	EPURI		PCT/I	3/00120
Patent document cited in search report	,	Publication date		Patent family member(s)		Publication date
WO 9710353	Α	20-03-1997	AU EP WO US	707119 086549 971035 592930	9 A1 3 A1	01-04-1997 23-09-1998 20-03-1997 27-07-1999
WO 0208404	A	31-01-2002	AU WO US US	809540 020840 200310609 200208802	04 A2 95 A1	05-02-2002 31-01-2002 05-06-2003 04-07-2002
WO 0004146	A	27-01-2000	IT AU WO	129956 519219 00041	99 A	16-03-2000 07-02-2000 27-01-2000
WO 9916890	A	08-04-1999	AU AU CA EP JP WO	74603 959809 230567 10195 20015183	28 A1 17 A2 05 T	11-04-2002 23-04-1999 08-04-1999 19-07-2000 16-10-2001 08-04-1999
US 6288304	B1	11-09-2001	US US US US AU AU BR CA WO EP ZA WO	42950 96000 22087 96210 08717 95109 21181	54 A 73 A1 31 A1 25 A1 41 B2 96 A 06 A 51 A1 29 A1	07-09-1999 22-07-1997 25-07-2002 03-07-2003 04-07-2002 19-08-1999 24-07-1996 21-01-1998 11-07-1996 21-10-1998 13-07-1996 28-10-1993